

## BOOK REVIEWS

**The Life Cycle and Behavior of *Cercoleipus coelonotus* (Acarina: Mesostigmata), Including a Survey of Phoretic Mite Associates of California Scolytidae.** Kinn, D. N. University of California Publications in Entomology, Volume 65. Berkeley, Los Angeles, London: University of California Press, 1971; 66 pages including 2 plates, 28 tables, 5 text figures; paper, 26 × 16.7 cm.; \$2.50.

Because of the predominance of bark beetles as destroyers of standing timber, and because of the unsuitability of chemical methods for their control, studies such as this one are of interest and importance not only to acarologists and entomologists but to everyone concerned with forest management and conservation. Kinn's adaptation of his doctoral thesis could well serve as a model for similar studies and reports on other mite-insect associations. Although in this instance the mite does not appear to be a useful adjunct in the control of the beetles, the carefully documented background survey and the meticulously controlled original investigations add much to our understanding of the complex interrelations of scolytids, nematodes, and mites of many kinds.

The mite in question, a species described by Kinn himself in 1970, lays its eggs in the tunnels of the beetles, particularly in those of *Ips confusus* (LeConte) and *I. montanus* (Eichhoff). The mites in all stages feed upon certain nematodes associated with the beetles and abundant in their galleries. Adults of both sexes are phoretic upon the emerging beetles in numbers of from one to eight per beetle. Kinn has studied the sensory basis of this phoresy and has shown that the moisture content of the phloem substrate is a more important factor than temperature or atmospheric humidity both in inducing and terminating phoresy. Olfactory recognition of the hosts appears to reside in the mites' palpi and, more especially, in the tarsus of leg I. The reader, incidentally, must give close attention to the distinction between the singular "tarsus," and the plural "tarsi," to avoid being confused by some of the experimental data. In addition to the life cycle and behavior, the sex ratio, chromosome number, and incidence on various beetle species at different times of the year are informatively studied and tersely reported.

There is an excellent summary and a bibliography of 161 titles. The text figures and photographic plates are of good quality. The editing, layout, printing, paper, and binding conform to the usual high standards of the University of California Publications in Entomology. I noted only one typographical error: "Millelungen," for Mitteilungen in the Wolff citation, page 62.

ASHER E. TREAT

**Centurie des Lépidoptères de l'isle de Cuba.** Ph.(elipe) Poey. Paris, 1832. Reprinted, 1970, with foreword and notes by C. F. Cowan, pp. I–XII + (1–4) + (53) pp., 20 col. plates. In North America obtainable from Entomological Reprint Specialists, P. O. Box 77971, Dockweiler Sta., Los Angeles, California, 90007, \$30.00.

Felipe Poey y Aloy was one of the great naturalists of the 19th century whose work was fundamental to the explosive growth of our knowledge that took place in that period. Born in Havana in 1799, where he early began collecting Lepidoptera, he was largely educated in law in Spain and France. Returning to Cuba in 1832, he lived there until his death in 1891, active until the last. His publications, of which this is the first, did much to make the geology, mineralogy and zoology of Cuba known to the world. In addition he corresponded with many Europeans, to whom he sent specimens and information.